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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,316	11/14/2000	Lars-Olof Ohberg	1878/00037	4171

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EXAMINER

SAADAT, CAMERON

ART UNIT	PAPER NUMBER
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3713

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,316

Applicant(s)

OHBERG ET AL.

Examiner

Cameron Saadat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

In response to Amendment filed on 10/2/02, claims 1-6 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monk et al. (U.S. Patent No. 5,414,347) in view of Jarrell et al. (U.S. Patent No. 4,215,347).**

Referring to claim 1, Monk et al. discloses a method of simulating an actual missile (column 7, lines 66-68 and column 8, lines 1-2) during the testing of an aircraft system comprising a weapon system (column 1, lines 10-13). Monk et al. further teaches a weapon system comprising control unit 16 for simulating signals that control a missile (column 10, lines 30-34 and lines 63-66). Monk et al. does not explicitly disclose that the simulated missile comprises a guidance system communications further comprising: a target seeker; an actual

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value signal, and a trouble signal (as per claim 1); a continuous measurement of the error/trouble signal and sampled values in amplitude and phase that are used to determine the command signal (as per claims 2-4); an interface that inverts the actual value signal (as per claim 5); and an error/trouble signal generated in a summing unit by summing the signal from the weapon system with the inverted actual value signal (as per claim 6). However, Jarrell et al. teaches a simulated missile comprising a target seeker that is commanded to adopt a predetermined position (column 4, lines 52-65) by a command signal (as per claim 1). Jarrell et al. further teaches an error/trouble signal measured by the target seeker to generate the actual value of the target seeker so that the weapon system can calculate a new error /trouble signal (column 4, lines 8-9). Furthermore, Jarrell et al. teaches that the error/trouble signal is measured continuously at an interface 10 and that the sampled values for error in amplitude and phase angle are used to determine the command signal (as per claims 2-4), (See Figure 1 and column 4, lines 58-65). Jarrell et al. also discloses an interface 10 that inverts an actual value signal (as per claim 5), (see Figure 1, ref.10). In addition, Jarrell et al. discloses an error/trouble signal that is generated in a summing unit 8 by summing the inverted actual value signal with the signal of the weapon system (as per claim 6), (see Figure 1, ref. 8). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the missile-weapons system testing as described in Monk et al., by providing a simulation of the missile guidance communications as taught by Jarrell et al. in order to accurately test the weapons system for guidance accuracy.

Response to Arguments

4. Applicant's arguments filed on 10/2/02 have been fully considered but they are not persuasive. Contrary to Applicant's argument, the combination of Monk et al. and Jarrell et al

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does suggest a method for simulating an aircraft missile during testing of an aircraft weapon system. Examiner maintains that Monk et al. teaches a method of testing an aircraft weapons system utilizing a simulated missile to simulate communication of signals between the weapons system and missile. Although Monk et al. does not explicitly disclose that the simulated missile signals comprise guidance communications, Jarrell et al. teaches a simulated missile wherein the simulated signals comprise guidance communications consisting of a feedback loop and error/trouble signals. Furthermore, Applicant stated that control systems with feedback are well-known in many areas. This is an accurate statement, especially with regards to actual missile guidance systems in addition to simulation of missile guidance systems, as taught by Jarrell et al.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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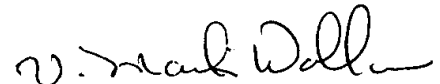
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is 703-305-5490. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 703-308-4119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



CS
December 15, 2002



VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700